

S. VENUTI

FILE/VERMICULITE  
HAZARD  
EVALUATION

MAY 25 1984

GRACE

Construction Products Division

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24 May 1984

Docket Officer  
Docket No. H-033C  
Occupational Safety & Health Administration  
U.S. Department of Labor  
200 Constitution Ave., N.W.  
Room S-6212  
Washington, DC 20210

VENUTI:  
(1) AS DISCUSS ASD  
(2) LETS SCHEDULE A  
MEETING WITH  
ESCHENBACH.

Subject: 29CFR Part 1910, Docket No. H-033C  
Occupational Exposure to Asbestos

Sir:

The following comments are submitted in response to the proposed rule and notice of hearing contained in the Federal Register, Volume 49, No. 70, Tuesday, April 10, 1984.

W. R. Grace & Co. (Grace) mines vermiculite in Libby, Montana and Enoree, South Carolina. The Libby ore body contains tremolite asbestos as well as non-asbestiform tremolite as contaminants. The Enoree ore is essentially asbestiform free. While most of the asbestiform tremolite is removed in the beneficiation process, the Libby ore concentrate does contain small amounts of this material.

Grace ships vermiculite from its mines to more than 30 expanding plants in various locations from which expanded and mixed products are supplied to the construction industry as well as for other applications. These finished products may contain trace amounts of tremolite following the purification that takes place during expansion. It is from the mining, milling, and expanding processes that Grace has gained experience in the practicalities of compliance with government asbestos standards.

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I GOT THIS  
FROM HARRY.  
THIS COPY IS  
FOR YOU

### Proposal Item 2. - Definitions

Grace supports the clarification of the definition of this standard. Clearly, tremolite and some of the asbestos types can exist in fibrous as well as crystalline or blocky mineral forms. It is not uncommon for some of these blocks or chunks to appear in a microscope as particles with an aspect ratio of 3 to 1. However, they are clearly not fibrous. Clarifying the definition would exclude these materials from fiber counts and make monitoring results more precise. We suggest that the OSHA definition be made consistent with those of MSHA and CPSC which specify anthophyllite asbestos, actinolite asbestos, and tremolite asbestos.

Grace also supports a change in the aspect ratio to at least 5 to 1 and preferably 10 to 1. Frequently, particles having a 3 to 1 ratio are clearly not fibrous, but must be counted to technically comply with the present standard. We believe that instituting a higher ratio will also increase the precision of real-fiber counting.

Grace is, however, concerned about and takes strong exception to OSHA's consideration of adding the following language to the definition of "asbestos": "... and every product containing any of these minerals and any of these minerals that has been chemically treated and/or altered." Since asbestos is such a ubiquitous material within the earth's crust, this modification of the definition would literally require the proposed standards to apply to any occupational setting in which materials containing naturally occurring trace amounts of asbestiform minerals are present, even including water. Grace believes the adoption of such a definition is contrary to the intent of OSHA's proposed regulations.

### Item 3. - Permissible Exposure Limits (PEL)

Grace's experience indicates that a TWA of 0.5 f/cc should be attainable by engineering or work practices given adequate time to devise appropriate techniques. However, a 0.2 f/cc TWA is a much more difficult level to achieve and, given the realities of workplace exposure evaluation, is substantially less verifiable. We estimate the incremental cost for Grace to achieve 0.2 f/cc versus 0.5 f/cc to be four to five million dollars. Further, we believe that the techniques which allow evaluation of airborne

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OVA Q.A. METHOD?

fiber levels below 0.5 f/cc have technical and statistical limitations when using optical microscopy. Furthermore, for the frequency required in occupational settings, electron microscopy is not cost effective. This, coupled with the lack of reasonable assurance of significant additional health benefits, suggests that a TWA PEL below 0.5 f/cc should not be considered. Even at a 0.5 f/cc TWA PEL, there should be an extended phase-in of this standard.

OSHA's suggestion in the "Methods of Compliance" section that respiratory protection may be used to reduce the exposure level from 2 f/cc to a new PEL is appropriate, particularly for intermittent exposures.

We believe that a ceiling limit of 2.0 f/cc for 15 minutes is unduly constrictive. It has been our experience in mining, milling and processing plants that there may be occasional excursions above the 2.0 f/cc level, but infrequently above the 3.0 f/cc level. Since the ceiling level is a highly artificial PEL unsupported by scientific fact, there is no compelling reason to go below 3.0 f/cc.

#### Proposal Item 4. - Action Level

If OSHA establishes a new lowered PEL of either 0.5 f/cc or 0.2 f/cc, there is no need for an action level as well. However, if an action level is established, it should not be used to mandate a potpourri of requirements such as exposure monitoring, regulated areas, hygiene facilities, and protective clothing.

#### Proposal Item 5. - Exposure Monitoring

Exposure monitoring at a frequency greater than every six months for employees exposed above the PEL serves little purpose unless there has been some change in the operation which requires further evaluation. The employer, in this situation, would undoubtedly be attempting to reduce that exposure and would therefore be sampling as the changes are made. In short, Grace believes there is no tangible benefit from increased monitoring frequency. These resources, both personal and financial, could be more appropriately devoted to other improvements in workplace conditions.

THE OVFORD  
PLANT MONITORING  
PROGRAM! RIGHT?

Item 6. - Regulated Areas

Grace would support having regulated areas only where exposures consistently exceed the PEL.

Proposal Item 7. - Methods of Compliance

Grace supports the concept of allowing any feasible combination of engineering controls, work practices, and personal protective equipment to reduce the exposures from 2 f/cc to the new PEL. We believe that such a flexible approach is necessary to achieve any significant degree of compliance with a new reduced PEL.

For example, we are unaware of a reliable procedure which will allow work inside a bag house without relying upon appropriate clothing and respiratory equipment. In a case such as this, even if one did succeed in achieving some degree of control through engineering means, personal protective equipment to assure worker safety would be used. Also, a limited exemption from the engineering control requirement for intermittent exposure situations is necessary.

In the use of respirators, a requirement for a quantitative fit program is one which we believe is not supported by the facts. It has been shown by several studies that a good qualitative fit test program is far less burdensome and yet just as effective as a quantitative fit program. We therefore recommend that OSHA require only an effective qualitative fit test.

WHAT IS THIS?

Proposal Item 9. - Protective Clothing

Grace supports the requirement of furnishing and wearing of protective clothing when employees may exceed the ceiling limit; however, this should not be made a requirement at the PEL.

Proposal Item 12. - Methods of Measurement

Grace believes that in an occupational setting, optical microscopy is adequate for fiber level determination. We believe there is neither need nor justification for the cost of electron microscopy for this purpose.

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Proposal Item 13. - Hygiene Facilities and Practices

Grace does not believe there are data which support a significant change from the present two separate locker standard. We strongly object to the concept of separate rooms at an action level. Requiring use of showering facilities is impractical because of the great difficulty in enforcement of a mandatory showering program.

Issues Concerning the Construction Industry

As previously stated, Grace supplies vermiculite based products such as insulation, fireproofing and light-weight aggregate to the construction industry. We therefore have an interest in how OSHA's rules may apply to this industry.

Grace concurs with OSHA that the construction industry should be subject to a separate standards for the reasons outlined in their April 10, 1984 proposed rules. The construction industry has always had difficulty in compliance with OSHA standards, both asbestos and others, especially with respect to air sampling, sanitation and records retention.

While Grace agrees that certain segments of the asbestos standards should be applicable to the construction industry, it also believes that a "uniform application" is not feasible or practical.

While we believe the construction industry should be subject to a separate fact-finding process, a separate rule making procedure, and separate standards which realistically address the differences in the construction industry from other occupational settings, we do offer the following comments in response to the request made in the Federal Register.

1. Permissible Exposure Limits

As stated under Item 3 on general industry, Grace believes that a 0.2 f/cc PEL is far more difficult to achieve or verify than a 0.5 PEL. Given the increased vagaries of the construction industry, the lower level may be intolerable. As previously stated, regardless of what new PEL is adopted, a phase-in period for compliance is essential.

2. Exposure Monitoring and Measurement

Air monitoring on new construction projects is impractical given the transient nature of work sites and workers. Also,

because of the open air environment in which projects are undertaken, air monitoring would be imprecise and extremely costly.

Because of the potential high exposure levels in demolition projects and because of the relatively contained environment for asbestos removal during demolition, air monitoring is necessary and practical.

We agree that safe work practices is the key to fiber control in new construction. Further, we believe the product information required for establishing safe work practices will be available for industry, including construction, as a result of OSHA's recently promulgated "Hazard Communication Standard."

Accordingly, a product certification system devoted specifically to the construction industry would be unnecessarily duplicative and costly.

3. Methods of Compliance

Grace believes that a flexible compliance strategy including use of respirators is necessary for the construction industry. We conclude this is especially critical when dealing with building demolition where fiber concentrations may exceed the ceiling levels.

*BUT A RELIABLE G.A. MONITORING  
OF TYPICAL FIBER LEVELS IS  
IN ORDER?*

4. Personal Protective Equipment

As stated under the general industry category, Grace agrees that employees should be furnished and required to wear protective clothing where asbestos exposures may exceed the ceiling limits. We believe, however, this should not be required at the PEL.

5. Hygiene Facilities

Grace believes that a separate set of guidelines are appropriate for new construction versus demolition. Since the exposure levels on demolition projects may be considerably higher and specific knowledge of the materials being removed less certain, separate guidelines appear warranted.

Grace agrees with CACOSH that non-fixed construction work places make traditional hygiene facilities and practices impractical.

6. Medical Surveillance

Grace believes that medical surveillance as it applies to general industry is not appropriate for the construction industry as indicated by CACOSH. For building demolition, where the employee may be exposed above OSHA's ceiling limit, medical surveillance as applied to general industry seems warranted.

7. Record Keeping

For all the reasons as outlined by CACOSH, we concur that record keeping can not be applied to the construction industry as it is to general industry.

Respectfully submitted,

W. R. Grace & Co.

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